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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,505	11/20/2003	Dale A. Flood	FLOO3001/JEK	5621

23364 7590 03/07/2006

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EXAMINER

SHAW, CLIFFORD C

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/716,505

Applicant(s)

FLOOD, DALE A.

Examiner

Clifford C. Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005 and 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 8 is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 9-17 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/20/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1223.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

1.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.) Claims 1, 3, 4, and 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flood et al. (5,686,002) taken with the Bhadha article, cited by applicant. Figure 4 and the discussion at columns 5-6 in the patent to Flood et al. (5,686,002) disclose the subject matter claimed except for the limitations directed to conducting the root pass in the substantial absence of moisture by using a gas delivery elastomer hose having a moisture permeability coefficient that falls within a range of either 0 to 275 (claim 1) or below 100 (claim 3). These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have implemented the welding method of Flood et al. (5,686,002) using conventional GTAW practices. Some of these conventional practices are discussed in the Bhadha article. This article teaches that as a general principle, it is advantageous to reduce impurities such as moisture in the shielding gas system (see the first paragraph of the article), and that an important aspect of this reduction of impurities is the proper choice of gas hose material (see the discussion on pages 36 and 37 of the article). The Bhadha article teaches that a gas hose permeability of 275 corresponds to widely used PVC tubing (see the first paragraph on page 37) and further teaches that "permeation coefficients less than 100 can be considered

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acceptable” (see the next to last paragraph on page 36 of the article). On the basis of these teachings, it would have been obvious to have used an elastomer hose with the characteristics claimed for the method of Flood et al. (5,686,002), the motivation being to implement this method using conventional practices to reduce impurities in a GTAW weld.

3.) Claims 5 and 6 are objected to for depending from rejected claims, but would be given favorable consideration if recast in independent form to include all of the limitations of the parent claims. There is no suggestion in the prior art of record of using the particular electrode composition in combination with the other process steps set forth in the claim.

4.) Claims 7 and 8 are allowable over the prior art of record. The claims are considered allowable for the reasons set forth by applicant in the “Remarks” section of his amendment filed on 12/23/2005.

5.) Applicant’s comments in his amendments filed on 12/23/2005 and 12/30/2005 have been given careful consideration, but insofar as these comments apply to claims 1, 3, 4, and 9-17, they are not persuasive of patentability. Applicant argues that there is no teaching in the prior art to use an elastomer hose with the particular moisture permeability coefficient ranges claimed. This argument is not persuasive. The Bhadha article teaches that the permeability coefficients claimed by applicant are typical of conventional hose materials used in GTAW welding.

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Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
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March 6, 2006